

In the specification:

Please amend the Title of the Invention to read as follows:

Method and Apparatus for Simultaneous Measurement of Electric Field and Temperature Using an Electrooptic Semiconductor Probe

Please amend the Abstract of the Disclosure to read as follows:

ABSTRACT OF THE DISCLOSURE

An apparatus and method to simultaneously measure electric and thermal fields with a single probe. Using an electrooptic semiconductor probe, [The] the Pockels effect is employed to measure electric field magnitude and phase, ~~within a gallium arsenide probe to measure electric fields,~~ and the effect of photon absorption due to bandtail states in the semiconductor is used to ~~determine~~ measure temperature. Techniques to scale relative electric-field measurements to absolute units (volts/meter), stabilize electric-field phase drift, and calibrate electric-field data that is corrupted when the probe is used in regions where temperature gradients exist are provided.